

EXPLOITATION OF HUMPBACK WHALES, *MEGAPTERA NOVAEANGLIAE*, IN THE SOUTH WEST PACIFIC AND ADJACENT ANTARCTIC WATERS DURING THE 19TH AND 20TH CENTURIES

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European discovery of the South West Pacific is briefly described in the context of subsequent whaling. Exploitation of humpback whales *Megaptera novaeangliae* in that region and adjacent Antarctic waters is considered in detail. Catches in the era of sail during the 19th Century were followed by extreme over-exploitation in the modern whaling era, particularly in the middle third of the 20th Century. Whaling methods in the different periods are discussed. □ *History of humpback whaling, 19th and 20th Century, South West Pacific, Antarctic waters.*

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The Pacific Ocean was named in 1520 by Ferdinand Magellan, who entered it after passing through the South American straits by which he is immortalised (Hough, 1971). Exploration of this vast ocean by British, Dutch, French and Spanish navigators continued during the 17th and 18th Centuries but two, Abel Tasman and James Cook, stood above the rest. Tasman discovered Van Diemen's Land (Tasmania), New Zealand, Tonga and Fiji in 1642-43 and Cook in three voyages from 1768-79 discovered inter alia the strait, which bears his name, separating the north and south islands of New Zealand and the east coast of Australia, including the Great Barrier Reef (Fig. 1). Cook was the first to cross the Antarctic Circle reaching 71°10'S in 1774, a record which stood for 50 years. He was killed at Hawaii in 1779. Hartley Grattan (1963) noted: 'With his death a great and marvellous era in the history of exploration was closed. All that happened after in Pacific exploration was like an epilogue'. However, Moorehead (1966) noted in his account of the European invasion of the South Pacific: '... it was Cook's fate to bring disaster in his wake. He had stumbled upon what was probably the largest congregation of wild life that existed in the world, and he was the first to let the world know of its existence'. Exploitation of but one species of marine mammal, the humpback whale *Megaptera novaeangliae*, in the South West Pacific and adjacent Antarctic waters in the two centuries following Cook's discoveries is the subject of this paper.

In 1789 the whaleship *Emilia* owned by Enderby & Sons of London entered the Pacific

via Cape Horn (Dakin, 1934). Small numbers followed in the last decade of the 18th Century but an avalanche occurred in the 19th. Vessels carrying the flags of Britain (including the recently settled east coast of Australia), France, Holland, Portugal and the United States of America predominated, particularly the latter. Richards (1988) also noted the loss of the *Mozart* of Bremen with a cargo of sperm whale oil at Christmas Island in 1847. The sperm whale, *Physeter macrocephalus*, was widely hunted and the southern right whale, *Eubalaena australis*, was almost exterminated from the high-seas and the bays and inlets of southern Australia. New Zealand and its adjacent sub-Antarctic islands (Dakin, 1934; Dawbin, 1986). In the early part of the 19th Century, waters to the south of New Zealand and Australia were also the province of sealers. Whale exploitation in the far south, including the Antarctic sea entered by James Clark Ross in 1841 (Mountfield, 1974), occurred in the 20th Century after the era of sail had given way to steam.

OPEN BOAT AND NET WHALING

PELAGIC WHALING. The benchmark for 19th Century humpback whale captures in the South West Pacific is Chart D of Townsend (1935). From the available logs of American whaleships the position on a day when one or more whales were captured was indicated and colour coding enabled determination of the month of capture. Clustering and overlap create difficulty in assessing regional captures but estimates (and a monthly breakdown) for the major capture sites

in the South West Pacific are as follows: Tonga 375 (July 20, August 124, September 107, October 24); Chesterfield Reefs 98 (July 18, August 47, September 33); Three Kings Island 29 (July 4, August 13, September 12); Cook Strait 28 (May 10, June 8, July 5, August 5); Foveaux Strait 8 (May 3, June 1, July 2, August 2). Captures were also recorded from Fiji, Norfolk and Lord Howe Islands (Fig. 1) as well as high-seas areas. American humpback whaling operations were also conducted in Samoan waters and the French operated in New Caledonian waters in the mid 19th Century (Garrigue & Gill, 1994). No humpback whale captures were recorded inside the sheltered waters of the Great Barrier Reef now a well documented calving ground (Paterson & Paterson, 1984, 1989; Simmons & Marsh, 1986; Paterson, 1991). It is possible that the near disaster experienced by Cook in 1770 when his vessel struck a reef near the mouth of the subsequently named Endeavour River may have deterred whaling in that region.

Given that the certainty of humpback whale migration habits was recognised as early as 1857 (Mitchell & Reeves, 1983), it is of note that the species was not a more common target of pelagic whalers. The majority of 19th Century humpback whale captures were made in the 50's to mid 80's following the great decline in right whale populations (Townsend, 1935; Wray & Martin, 1983). Wray & Martin also noted that humpback whales yielded high grade oil but Mitchell & Reeves (1983) disputed this and quoted various authorities indicating general market preference in most years (although not in the 80's) for sperm whale oil. Bullen (1901) mentioned that poor catches of humpback whales were compensated for by the peacefulness of a visit to the nearby Friendly Islands. Ambivalence regarding capture of the species is discussed by Mitchell & Reeves (1983) who, together with Wray & Martin (1983), noted that male humpback whales were difficult to catch and this resulted in concentrated effort on cows accompanied by calves. Accordingly, it is likely that captures recorded by Townsend (1935) in areas such as Tonga and the Chesterfields (Fig. 1) during the austral spring may have resulted in 'double mortality' given that those regions were known calving grounds and that orphaned calves would have had little chance of survival. The possible long term result of this practice (banned by international agreement in 1931, effective in 1935) on humpback whale populations in the South West Pacific will be discussed later but it should be noted that

similar exploitation was to occur in the Tongan region, albeit at a low rate, for another century (Ruhén, 1966).

TWOFOLD BAY. Situated at 37°S on the east Australian coast (Fig. 1), Twofold Bay is remarkable in Australian whaling history for two reasons. Firstly, whaling by traditional (open-boat and shore-based) methods extended for a period of ~70 years until the late 1920's and secondly, it is the only recorded site of cooperation between killer whales *Orcinus orca* and man with regard to whale capture.

An early reference to humpback whaling at Twofold Bay, associated with the collapse of the southern right whale population, was noted in correspondence between James Hewitt and James Kelly, an Australian whaling pioneer. Hewitt was sent in the *Amity* from Hobart to Twofold Bay in 1841. The expedition was disastrous and no right whales were seen from 24 June to 31 August. Hewitt returned with oil from only 6 small humpback whales (Bowden, 1964). The southern right whale industry from the many but small Tasmanian shore stations had collapsed by 1845. It is probable that small numbers of humpback whales were taken in that period.

The long period of humpback whale exploitation at Twofold Bay by traditional methods was dominated by the Davidson family who operated a small station at the mouth of the Kiah River from 1866 until about 1927 (Dakin, 1934; Davidson, 1988). Annual catches are difficult to determine but a catch of 20 in a season (June-November) was considered to be exceptionally high and in some years, particularly in the 20th Century, none were caught (Davidson, 1988). It should be mentioned that the Davidsons captured other species, including occasional right whales and a 24.4m long blue whale, *Balaenoptera musculus*, in 1910, a record for traditional methods. As was the practice of the American pelagic whalers, the Davidsons killed cows accompanied by calves as the following account (which also documents killer whale cooperation) demonstrates: 'On Tuesday [4 November 1919] a large humpback whale and calf ... coerced by killers, came into the harbour, where they were effectually held up under a fierce attack by their pursuers pending the arrival of the Kiah whalers. In due course George Davidson got home with the harpoon and, after a lengthy chase which was followed by a large number of highly interested and excited spectators, succeeded in securing his prize ... The calf was allowed to escape, and the

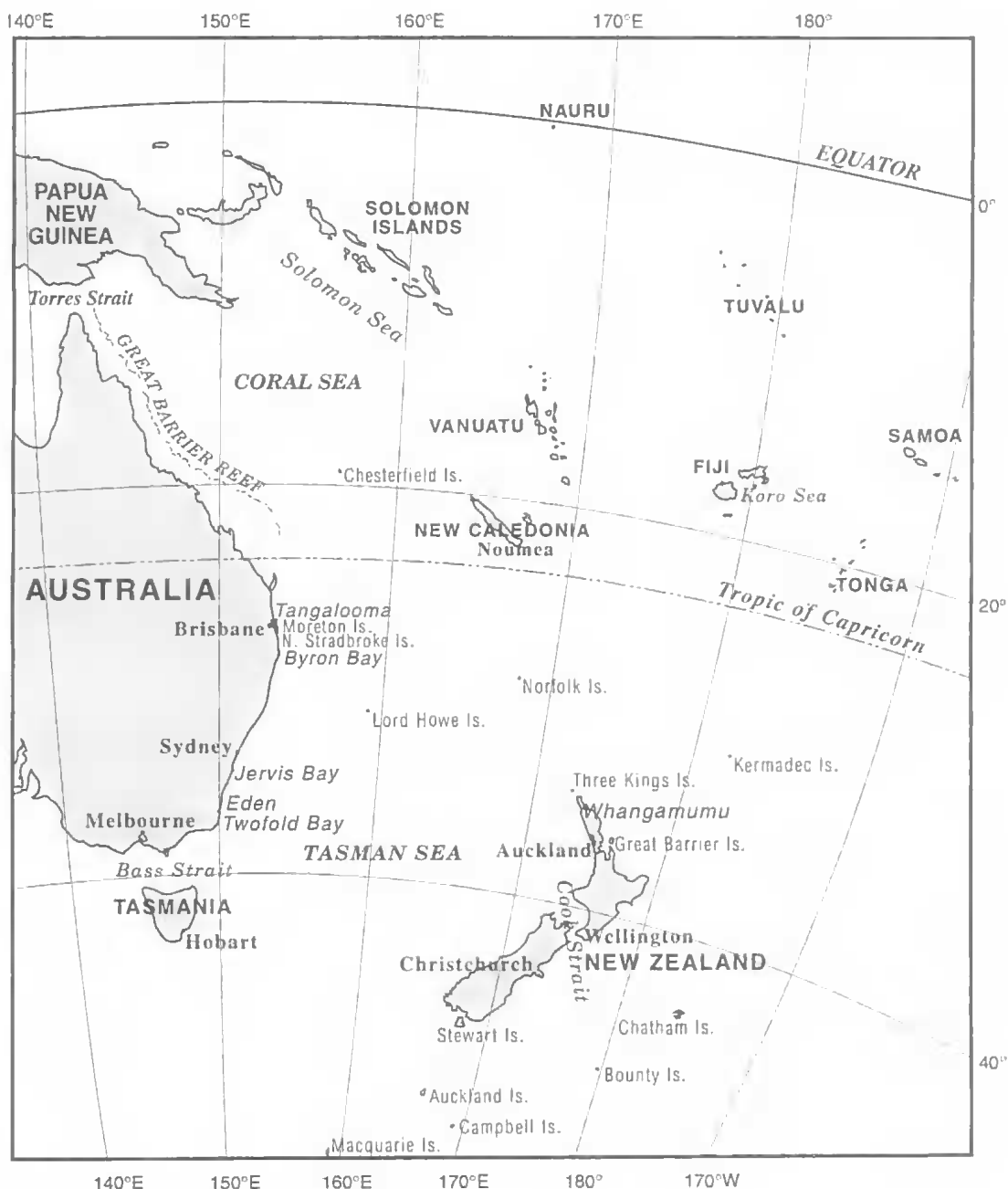


FIG. 1. Map of the South West Pacific Ocean.

next morning followed the dead body of its mother as the latter was being towed to the whaling station at Kiah River.' (Davidson, 1988). The reference to the mother being towed to the whaling station the day after being killed reflected the practice at Twofold Bay, which was similar to that of pelagic humpback whaling, of

waiting for the whale to bloat before processing commenced. In contra-distinction to right whales, humpback whales sank when killed and rose to the surface as decomposition advanced. In the context of Twofold Bay, the resultant buoyancy allowed for easier towing by rowing boats to the station.

The role of killer whales at Twofold Bay was described as early as 1843 by Oswald Brierly and their habit of driving humpback whales (as well as other species) into the bay and 'keeping' them there in anticipation of being rewarded by the whalers with choice pieces, preferably the tongue, has been described by many authors, including Dakin (1934) and Mead (1963). Mitchell & Baker (1980) comprehensively documented this unusual behaviour.

NEW ZEALAND AND NORFOLK ISLAND. Dawbin (1956) listed 113 shore-stations (and visited many of those disused sites) from which whales were captured by traditional methods in the 19th Century. Although the southern right whale was the preferred and initial quarry, humpback whale captures were noted from Cloudy Bay in 1841, Palliser Bay and Kaikoura in 1843, and the importance of the latter species increased as the century progressed. The tendency of humpback whales to migrate close to shore (and on occasions extremely so) was exploited by the Cook family who used steel nets to entangle whales at Whangamumu (Fig. 1) in the North Island from 1893-1910. The technique was unique, apart from net use in Japanese coastal whaling from the early 17th Century (Harrison Matthews, 1968). Nets were set between the shore and a nearby rock and most captures were made closest to shore in a channel <20m wide (Dawbin, 1956). Catches rarely exceeded 12 in a season (June-August) at this station which was among the most successful in New Zealand.

Traditional humpback whaling commenced at Norfolk Island in 1857 and continued, although with periods of interruption, until 1927 (Lewis-Hughes, 1992). Although operations were on a relatively small scale, the industry was an important income source for this isolated island, particularly as the victualling trade with American whalers declined in the 60's during the Civil War. As was the practice in other areas using traditional methods, cows accompanied by calves were killed but the problem of a non-buoyant carcass was dealt with differently:

'In the early days whales were plentiful and were often killed close to the island, but as time went on the whaleboats were often forced to row or sail many miles out to sea to make a kill. The predominant species was the humpback which, unlike some others has an inclination to sink after it has been killed so, it was necessary for one of the boat's crew to tie or lash (some accounts say

sew) the monster's jaws shut to provide minimum drag when being towed and to reduce the chance of the animal filling with tons of water. Towing the whale tail first caused the flukes to extend at ninety degrees to its body creating great water resistance. If tail first towing was employed it was first necessary to sever the fluke muscles so that the flukes folded back along the whale's body once the tow commenced ... The whale of course was much larger than the boat and its great bulk did not improve the boat's sailing and pulling qualities.' (Lewis-Hughes, 1992). The methods employed at Norfolk Island were recorded on cine film in the late 1920's and a copy is held in the archives of the Queensland Museum.

As the 19th Century closed the earlier extensive pelagic whaling industry, based on sail, was virtually defunct. Small relic operations continued at Norfolk Island, Tonga and Twofold Bay as well as the net method at Whangamumu. This period of relative respite for humpback whales was to be brief and in the middle third of the following century, an unprecedented onslaught was unleashed.

MODERN WHALING

NORWEGIAN EXPANSION SOUTHWARDS. Progressive diminution of whale stocks in the North Atlantic at the close of the 19th Century resulted in increasing interest, particularly by Norwegian whalers, in the Southern Hemisphere. The first 'commercial' kill by modern methods was a humpback whale taken by A.A. Andresen in the Straits of Magellan on 31 December 1903 (Tønnessen & Johnsen, 1982). Activity initially centred on the rich grounds in the South West Atlantic, particularly at South Georgia (Fig. 2), and subsequently at lower latitude sites in South Africa and Western Australia. As the century progressed whaling extended to all aspects of the Southern Ocean. The extensive exploitation of humpback whales in the South West Atlantic was not initially repeated in other high latitude regions as shore-based and/or shore-related operations were not feasible. Whaling commenced in the Ross Sea (Fig. 2) in the summer of 1923-24 after the British government licensed Norwegians to operate in that region which included the Balleny Islands (Tønnessen & Johnsen, 1982). However, before further describing whaling in the Ross Sea consideration should be given to earlier Norwegian activity, involving modern methods, off the east coast of Australia. Dakin (1934) recorded the events in detail. Monson of Tønsberg formed

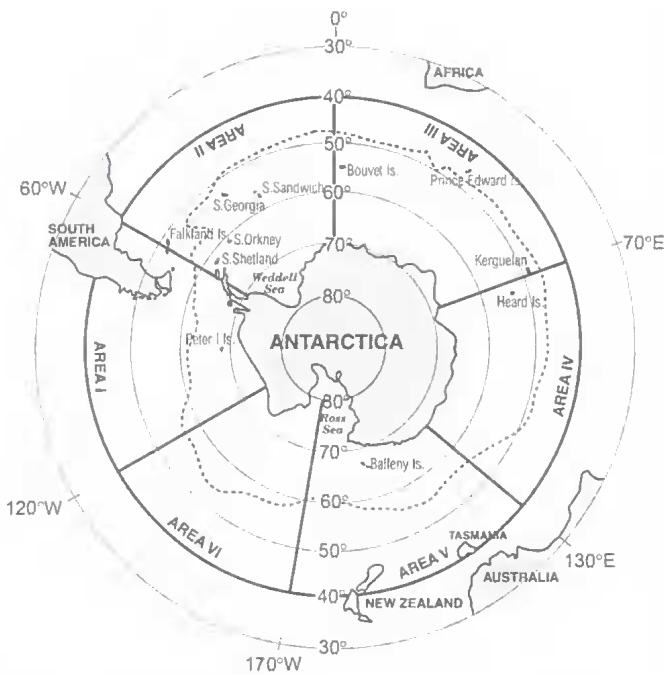


FIG. 2. Boundaries of six Southern Hemisphere whaling areas adopted in the 1930's.

the Australia Company in 1911 and sent the 8,000 ton factory ship *Loch Tay* with accompanying chasers to the east Australian coast in 1912. Operations commenced at Jervis Bay (Fig. 1) in September during the southern migration, and ceased at the end of November with an oil yield of only 3,000 barrels. Mitchell & Reeves (1983) considered that a humpback whale processed according to 19th Century methods yielded ~25 barrels. Assuming that 1912 methods were more efficient, it is likely that the catch at Jervis Bay was in the order of 100. The *Loch Tay* then proceeded to the Bluff in New Zealand where sperm whales were captured until May 1913 after which operations recommenced at Jervis Bay. The yield until October 1913 was 9,500 barrels, a catch possibly exceeding 300 although Dawbin & Falla (1949) estimated the catch at ~200-250. Numerous objections were received from local residents at Jervis Bay during the short 1912 season as well as from the authorities at the recently established Royal Australian Navy training college. They considered that whaling polluted local waters as well as causing offensive odours. Norwegian operations ceased at the end of the 1913 season for financial reasons rather than local objections and humpback whales migrating along the east Australian coast (apart

from small numbers taken at Twofold Bay) were spared from exploitation for a period of almost 40 years when operations commenced at the lower latitude sites of Byron Bay and Tangalooma (Fig. 1).

NEW ZEALAND, NORFOLK ISLAND AND TONGA. The Perano family dominated New Zealand whaling during the modern era. They captured their first humpback whale at Dieffenbach Point in the upper reaches of the Tory Channel adjacent to the Cook Strait (Fig. 1) in 1911 (Grady, 1982). Initial catches were modest. It was not until 1928 that more than 50 were captured in any season. The largest annual catch was 226 in 1960 prior to the end of the modern whaling era. In 1963 only 9 were captured. The total catch from the Cook Strait was 3,876 (Grady, 1982). The Peranos then directed their efforts towards sperm whales but ceased all whaling activity in 1964.

F.D. Ommanney visited the Perano's station in 1932 when the research ship *Discovery II* was refitting in Auckland. He noted that the plant was tiny and primitive by Antarctic standards and that Joe Perano knew nothing of Norwegian methods (Ommanney, 1933). He and his sons developed their hunting method in isolation and it was unique in many respects. Fast motor boats with a light bow-mounted harpoon gun were used and the harpoon line, also much lighter than that used by the Norwegians, was played from the stern of the chaser. The explosion of the grenade stunned but did not usually kill the whale. The boat was then brought alongside and the whale was inflated and then despatched by inserting into the upturned underside of the thorax a long lance with a hollow cast iron head filled with gelignite. It was then 'touched off' by an electric detonator. This method caused some fatalities to crew members. Ommanney considered the operation to be a modification of 19th Century traditional methods. In later years the Peranos developed more modern methods and their processing efficiency increased (Grady, 1982) but they still captured modest numbers based on a policy of voluntary restraint, which made their operation remarkable in the history of modern humpback whaling (Tonnessen & Johnsen, 1982). The Perano's method of cliff-top

sighting for approaching humpback whales was unique in the modern era, apart from similar methods (although from higher elevations) for sperm whales in the Azores (Clarke, 1954).

While in Auckland Ommanney also met W.H. Cook of Whangamumu net whaling fame. Nets had been abandoned in 1910 when a steam chaser was purchased. Captures, with males predominating, averaged 48 a year, with a record of 74 in 1927. Operations ceased permanently in 1931 (Ommanney, 1933).

In 1957 another station commenced at Great Barrier Island (Fig. 1) in the Hauraki Gulf (Dawbin, 1967) but initial catches were poor. Operations continued after 1959 under the auspices of the Barrier Whaling Company which had close commercial links with whaling operations at Byron Bay, on the east Australian coast, and Norfolk Island (Jones, 1980). Its success was brief and the station closed in 1962 after a total catch of 264 humpback whales (Dawbin, 1967 & 1997).

Humpback whaling, based on modern methods, re-commenced at Norfolk Island in 1948 under the control of the New Zealand owned South Seas Whaling and Sharking Company (Lewis-Hughes, 1992). That venture failed in 1949. In 1955 the Norfolk Island Whaling Company was formed as a subsidiary of the Byron Whaling Company and they subsequently merged to become the Norfolk Island and Byron Bay Whaling Company (Jones, 1980). A modern processing plant was installed at Cascade Bay where a rusting boiler remains today. In contradistinction to New Zealand operations, humpback whaling at Norfolk Island was subject to annual quotas (initially 150) set by Australian authorities after consultation with the International Whaling Commission (IWC). Varied timing strategies were employed at the Norfolk Island and Byron Bay stations. In 1956 operations commenced at Norfolk Island on 18 August (after the Byron Bay quota of 120 was filled) and ceased on 26 October (Jones, 1980). In 1957 operations commenced at Norfolk Island, transferred to Byron Bay in mid-season, and were completed at Norfolk Island. In 1958 the situation was reversed. In 1962 operations ceased after only 4 humpback whales were captured from a quota of 170. Total captures for 1956-62 were 824.

TONGA. Traditional humpback whaling modified from 19th Century American methods was conducted in Tonga by local inhabitants, including

those related to W.H. Cook of Whangamumu (W.H. Dawbin, pers. comm.), at least until 1978 (Paterson & Paterson, 1984), thus surpassing by almost half a century the other South West Pacific relic operations at Norfolk Island and Twofold Bay. As previously described at Norfolk Island, whale jaws were sewn together to aid towing, but the 'needle' was specially prepared humpback whale bone (J. Ovaleni, pers. comm.). Catches, described by Ruhen (1966), were small but Dawbin (1997) recorded a total of 87 from 1957-61 and a further 35 were reported from 1973-78 (IWC, 1980). The majority were cows accompanied by recently-born calves. Thus, for more than a century in the Tongan region, exploitation which ensured 'double mortality' was carried out firstly by Americans and subsequently by locals.

EAST AUSTRALIAN COAST. Following the Second World War, shore-stations based on modern methods were established at Tangalooma on Moreton Island and Byron Bay in 1952 and 1954 respectively. Whale Industries Pty Ltd, an Australian public company, controlled operations at Tangalooma although catching was dominated by Norwegian personnel. Jones (1980) provided an account of whaling activities, including detailed specifications of the chasers. Annual IWC quotas (increased to 810 in 1959) were readily filled in early years. However, the seasons lengthened as whales became scarce and Chittleborough (1965) noted progressive diminution in catch per unit effort (CPUE). The stations closed in 1962 after total captures of 7,423 from 1952-62. Paterson & Van Dyck (1988, 1995) reported additional, but incidental, catches of Bryde's whales *Balaenoptera edeni* and a single blue whale from Tangalooma and Byron Bay. Those limited captures illustrate the absolute reliance of the stations on adequate stocks of humpback whales.

ANTARCTICA. In 1923 the *Sir James Clark Ross* a modern factory ship entered the Ross Sea to search for abundant right whales reported on the discovery of this vast sea in 1841 (Dakin, 1934). The vessel was commanded by C.A. Larsen, a veteran Norwegian whaler, who died when the ship was near Victoria Land on 8 December 1924. Right whales were not found but blue whales were in abundance and perhaps the largest (31.8m) ever captured was taken at Discovery Inlet during that expedition (Tonnessen & Johnsen, 1982). It was soon appreciated that large numbers of whales congregated outside the

Ross Sea which had proved a difficult operational area due to variable ice and weather conditions. In 1929 whaling on a scale soon lamented by Harmer (1931) commenced beyond the pack ice north east of the Balleny Islands (Fig. 2). Captures of humpback whales in that region were in reality only in by-catch numbers at that time. Totals of 643 and 173 were reported in 1929-30 and 1930-31 respectively (Hjort et al., 1934). In the following decade, dominated by intense international pelagic whaling rivalry as well as the Great Depression and the outbreak of the Second World War, humpback whale catches in the region were small. Chittleborough (1965) noted 24 in 1938-39 and Omura (1953) reported an additional 201 in 1940-41.

The now familiar six Southern Hemisphere baleen whaling areas (Fig. 2) were designated following an international conference held in London in 1937. The regions of particular interest to this account are Area V and the western portion of Area VI. In an attempt to protect the interests of shore-stations and/or factory ships catching humpback whales along southern continental coasts as well as New Zealand, a ban on captures south of 40°S from 1 October 1938 to 30 September 1939 was implemented in a protocol (International Agreement for the Regulation of Whaling) agreed to in 1938 with the exception of Japan. This decision reflected increasing concern at the levels of exploitation of humpback whales at feeding and breeding locations as well as along coastal migration routes. In addition the capture of all baleen whale species was banned south of 40°S between the South Shetlands and the eastern Ross Sea (Fig. 2). These sanctuary provisions remained in force until 1955.

Following the Second World War, further attempts to regulate whaling and preserve stocks led to the formation of the IWC in 1946. The pre-war ban (relaxed temporarily in 1940-41) on humpback whale captures south of 40°S was continued until 1949-50 when a total Antarctic catch of 1,250 was permitted following Norwegian proposals (Tønnessen & Johnsen, 1982). Area V catches reported to the IWC from 1950-61 were 5,115 (Paterson & Paterson, 1984). Also included are the initially unreported 1955 catch of 1,097 by the *Olympic Challenger*. The saga of this pirate whaler owned by Aristotle Onassis and under the command of Wilhelm Reichert, which commenced operations off the South American coast in 1950, has been fully documented by Tønnessen & Johnsen (1982). It

operated in Area V in 1954-55 and, as elsewhere, humpback whales and other species were taken without restriction (mothers and calves included). Unfortunately, this episode was not the only instance of illegal Antarctic whaling in the closing stages of the modern era. Chittleborough (1965) considered that unreported captures of ~5,000 humpback whales occurred in Area V in 1960-62. He also noted that two correctly identified humpback whales marked with *Discovery* tags off Moreton Island and in the Cook Strait (Fig. 1) were reported as fin *Balaenoptera physalus* and sperm whales when subsequently captured in the feeding grounds. Given that mark recovery was low he considered it likely that these two recoveries indicated more numerous catches of 'mis-identified' whales. This masterly understatement of concern awaited 30 years for vindication which occurred after political upheaval in the former Soviet Union when Yablokov (1994) divulged preliminary information concerning illegal Russian Antarctic whaling activity in the late 1950's and 1960's. The enormity of this activity (in complete disregard for the convention and quotas of the IWC) has now been more fully documented. From 1959-62 humpback whale captures in Areas V and VI alone were 15,012. Whilst the earlier saga of the *Olympic Challenger* merited and received universal condemnation, it was in reality miniscule compared with the massive damage inflicted by a succession of Russian fleets acting in accord with deliberately secretive national policy. The *Slava* and the *Sovetskaya Ukraina* in a combined operation captured 11,605 humpback whales in 1959-60 (Mikhalev, 2000). They hunted primarily between 61°-66°S and 130°E-165°W and killed all whales seen, including mothers and calves. The *Yuri Dolgorukiy* captured a further 3,407 humpback whales in Areas V and VI from 1960-62 (Tormosov, 1995). Thereafter, the Russians abandoned those areas but captured a further 3,202 humpback whales principally from Areas II, III and IV between 1962-73.

SUMMARY

At least 30,481 humpback whale captures have now been reported from Antarctic Areas V and VI, New Zealand, the east Australian coast, Norfolk Island and Tonga between 1950-62 with the Antarctic captures by the *Olympic Challenger* and the Russian fleets totalling 16,109 or 52.8% in less than four seasons. The IWC banned the capture of Southern Hemisphere humpback

whales in 1963. What has been the subsequent fate of those grossly depleted stocks? Machida (1974), who presumably had no specific knowledge of the illegal Russian activity, expressed great concern after the Japanese research vessel *Konan Maru No 16* saw only 7 humpback whales during a comprehensive survey of the Area V feeding grounds in March 1973. However, the east Australian humpback whale stock has demonstrated considerable resilience and long-term shore-based surveys at Point Lookout on North Stradbroke Island (Fig. 1) have demonstrated an annual rate of increase in excess of 10% (Bryden et al., 1990; Paterson et al., 1994, 2001). There is as yet no evidence of recovery in the New Zealand stock which had the particular disadvantage of prolonged 20th Century exploitation during its breeding, feeding and migration phases (Dawbin, 1997; Mikhalev, 2000). Dedicated surveys are considered to be presently unwarranted in New Zealand as there are no consistent reports of humpback whales from experienced casual observers such as Cook Strait ferry captains (C.S. Baker, pers. comm.).

Public opinion in the past 20 years has shifted considerably in favour of conservation. Commercial whaling is now prohibited in Australia (including its claimed Antarctic territory) and New Zealand as well as their respective exclusive economic zones. In 1994 the IWC declared the Southern Ocean a whale sanctuary, a measure not supported (or observed) by Japan. If these conservation attitudes are maintained and environmental factors remain constant, the near disaster which befell the humpback whale in the South West Pacific and adjacent Antarctic waters may ultimately be regarded as an aberration, albeit one which persisted for almost two centuries.

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